KEWANEE

Firebox Boilers

For Steam and Water Heating

Portable Type

Supplement to Catalog No. 62. Oct. 1, 1914

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KEWANEE BOILER COMPANY

Kewanee, Illinois

CHICAGO, Washington and Market Streets; NEW YORK, 47 W. 42d Street
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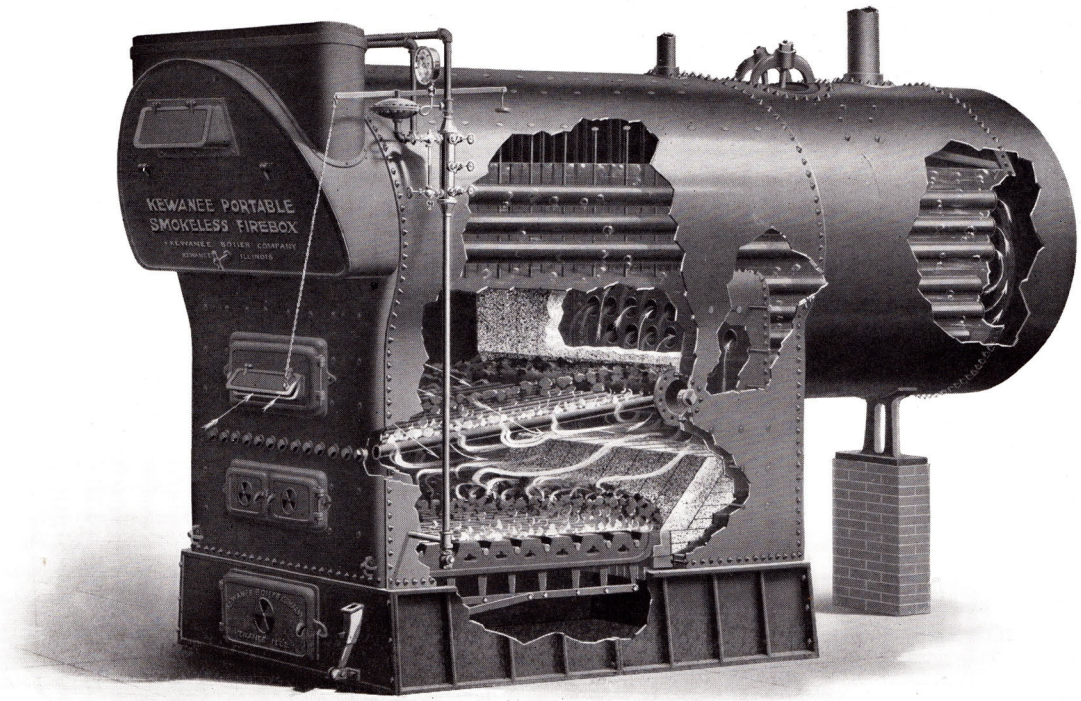
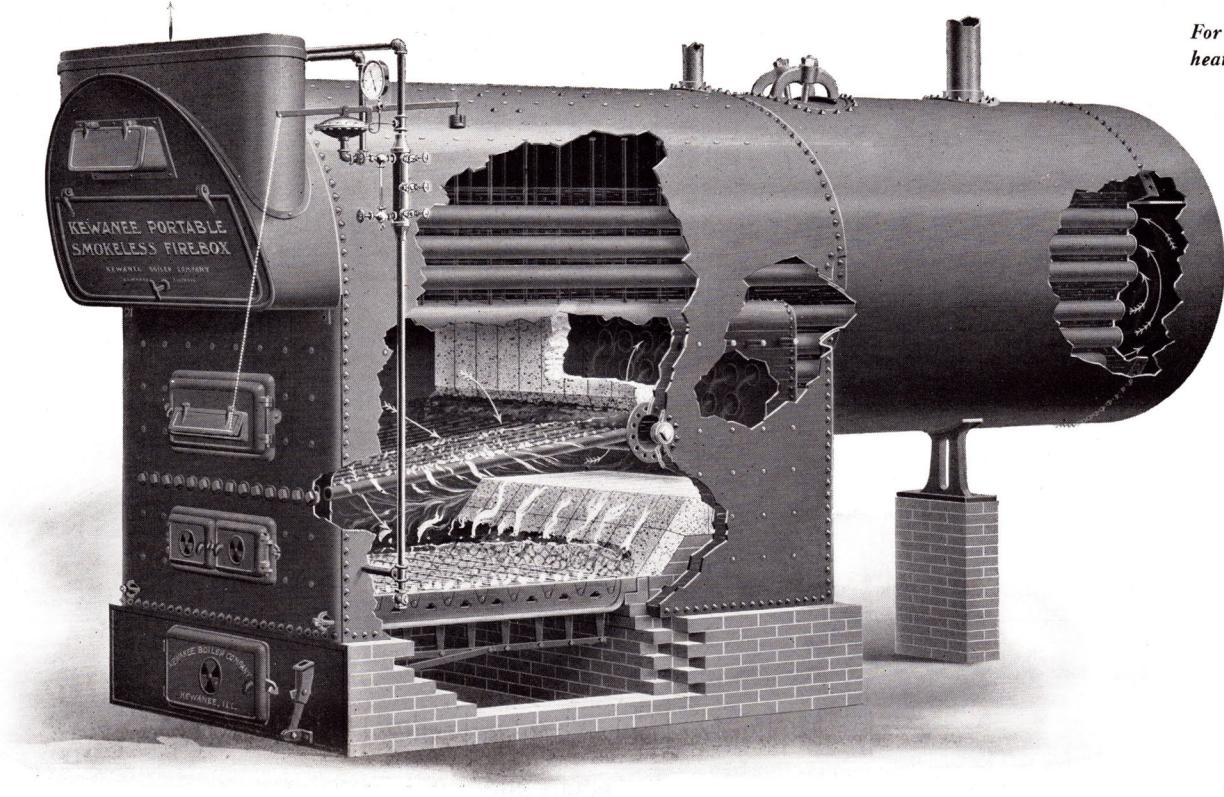
Steel Power and Heating Boilers, Radiators, Tanks, Garbage Burners

For low pressure heating purposes



KEWANEE Smokeless Firebox Boiler—portable type. Boilers No. 314 (and smaller) constructed as above. Iron Ash-pit (as illustrated) furnished with Boilers No. 309 and smaller.

For low pressure heating purposes



KEWANEE Smokeless Firebox Boiler—portable type. Boilers No. 315 (and larger) constructed as shown above. Boilers No. 310 (and larger) set on brick foundation as illustrated.

Price List — KEWANEE Smokeless Firebox Boilers — Portable Type

These Boilers will heat all the radiation shown by their capacity

Number	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322
Capacity, Steam.....square feet	1000	1200	1500	1900	2100	2500	3000	3500	4000	4500	5000	5500	6000	6500	7500	8500	10000	12000	14000	16000	18000	20000
Capacity, Water.....square feet	1600	2000	2400	3100	3400	4000	4800	5700	6500	7300	8200	9000	9800	10500	12200	13800	16300	20000	23000	26000	30000	33000
Code, Steam Boiler complete....	Park	Pad	Pain	Paint	Palmy	Paltry	Panel	Panic	Pansy	Papa	Paper	Parch	Pail	Parcel	Pardon	Park	Parole	Party	Pastry	Patrol	Pawn	Pay
Code, Water Boiler complete....	Peace	Pane	Pea	Pearl	Pebble	Peddle	Pelt	Penal	Pencil	Pen	Pepsin	Perch	Perfect	Peril	Period	Perish	Permit	Persue	Person	Peruse	Petal	Pestle
Price Steam Boiler, castings and tools.....	$500	$530	$560	$680	$730	$780	$900	$950	$1000	$1100	$1200	$1300	$1500	$1650	$1850	$2100	$2300	$2400	$2600	$2800	$3200	$3400
Price, Steam Trimmings.....	$20	$20	$20	$20	$20	$20	$24	$24	$24	$24	$30	$30	$30	$30	$30	$30	$40	$40	$50	$50	$50	$50
Price Water Boiler, castings and tools.....	$520	$550	$580	$700	$750	$800	$920	$970	$1020	$1120	$1220	$1320	$1520	$1680	$1880	$2150	$2350	$2450	$2650	$2850	$3250	$3450
Approximate weight.....pounds	5300	5600	6000	6500	6800	7200	8400	9200	10000	11000	12000	13000	14000	15000	19000	20000	22000	23000	26000	27000	29000	32000

Extras and Changes — add to above lists

For longer Shell each foot or fraction of a foot.....	$30	$30	$30	$40	$40	$40	$50	$50	$50	$70	$70	$70	$80	$80	$80	$80	$90	$90	$100	$100	$120	$120
For longer Firebox including Grate, each six inches.....	$50	$50	$50	$60	$60	$60	$80	$80	$80	$90	$90	$90	$120	$120	$120	$120	$140	$140	$160	$160	$180	$180

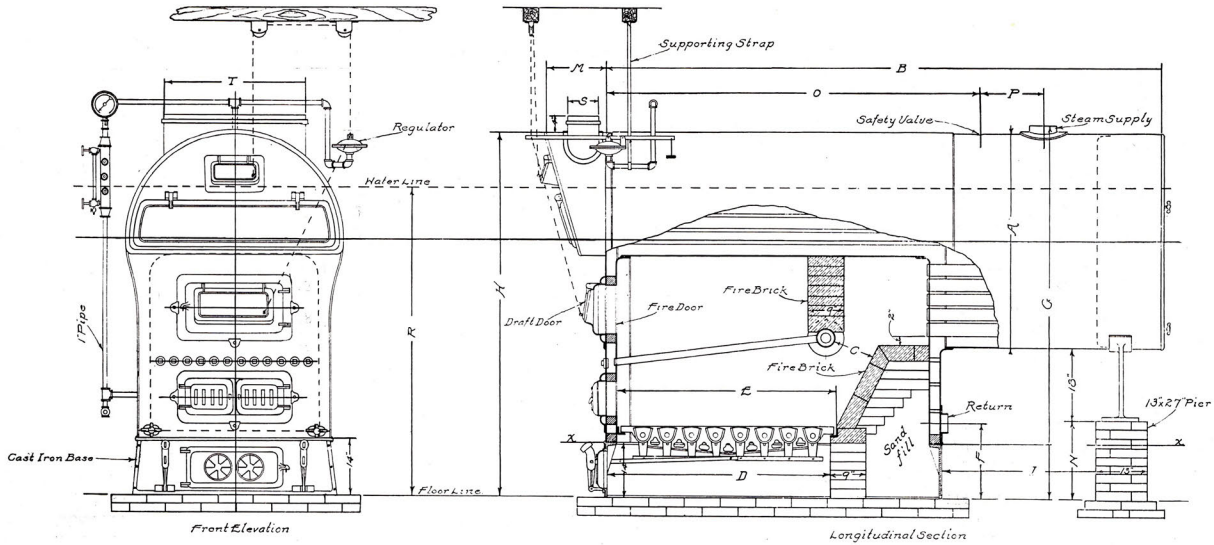
Opening in Firebox for Coil $4.00 list per Boiler. All Spacing Rings are semi-steel. List for Boilers Nos. 301 to 309 inclusive, include Cast Iron Base.

Specifications — KEWANEE Smokeless Firebox Boilers — Portable Type

These Boilers will heat all the radiation shown by their capacity

Number	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322
Diameter Boiler. . . . . inches	36	36	36	42	42	42	48	48	48	54	54	54	60	60	60	60	66	66	72	72	78	78
Length Boiler. . . . . feet	7½	7¾	8½	7¾	8½	9½	8¾	10	11	10½	11½	12½	12½	13½	15	16	15½	17½	16½	17½	17½	18½
Width of Firebox. . . . . inches	24	24	24	30	30	30	36	36	36	42	42	42	48	48	53	53	59	59	65	65	71	71
Length of Firebox. . . . . inches	44	48	51	48	51	57	54	60	66	72	78	84	78	84	90	96	90	96	96	102	102	108
Number Direct Tubes.	17	17	17	21	21	21	30	30	30	40	40	40	29	29	29	29	38	38	48	48	61	61
Approximate length Tubes, inches	30	30	36	30	36	40	32	42	48	36	42	48	54	60	69	75	74	92	75	86	84	91
Size Direct Tubes. . . . . inches	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4
Number Return Tubes.	18	18	18	25	25	25	30	30	30	36	36	36	30	30	30	30	33	33	48	48	52	52
Approximate length Tubes, inches	77	81	90	81	90	100	89	105	117	111	123	135	135	147	162	174	168	192	174	191	189	203
Size Return Tubes. . . . . inches	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4
Heating Surface. . . . . square feet	155	161	180	211	236	261	287	341	380	425	473	528	580	630	708	760	846	981	1183	1308	1465	1563
Area Upper Grate. . . . square feet	4.4	5	5.5	6	6.7	8	8.8	10.1	11.4	12.9	14.7	16.5	17	18.5	20	21.4	23	25.5	28.1	30	32.6	34.6
Diameter Breeching. . . . . inches	14	14	16	16	16	16	20	20	20	22	22	22	26	26	26	26	28	28	32	32	36	36
Diameter Stack. . . . . inches	14	14	14	14	14	14	18	18	18	20	20	20	24	24	24	24	26	26	30	30	32	32
Minimum height Stack. . . . . feet	40	40	45	50	50	50	60	60	70	75	75	80	80	80	80	80	80	90	90	90	100	100
Diameter Stack 2 Boilers. . inches	18	18	18	20	20	20	24	24	24	26	26	26	32	32	32	32	34	34	40	40	44	44
Minimum height Stack 2 Boilers . . . . . feet	40	40	45	50	50	50	60	60	70	80	80	80	80	80	85	85	90	90	90	90	100	100
Size Steam Opening (one) inches	3	3	3	4	4	4	6	6	6	6	6	6	7	7	7	7	8	8	8	8	8	8
Size Return Opening (one) inches	2½	2½	2½	3	3	3	4	4	4	4	4	4	5	5	5	5	6	6	6	6	6	6
Size Safety Valve Opening inches	1½	1½	1½	2	2	2	2½	2½	2½	2½	2½	3	3	3	3½	3½	3½	3½	4	4	4	4
Number and size of Supply and Return Openings for Water Boiler.	1–6	1–6	1–6	1–6	1–6	2–6	2–6	2–6	2–6	2–6	2–7	2–7	2–7	2–7	2–7	2–8	2–8	2–10	2–10	2–10	2–10	2–10
Height of Water Line. . . . inches	66	66	66	69	69	69	72	72	72	78	78	78	83	83	86	86	90	90	97	97	97	97
Height Floor to Top of Shell . . . . . inches	74	74	74	79	79	79	84	84	84	92	92	92	98	98	101	101	107	107	113	113	115	115

For Setting Plans and other measurements see pages 6, 7, 8 and 9.

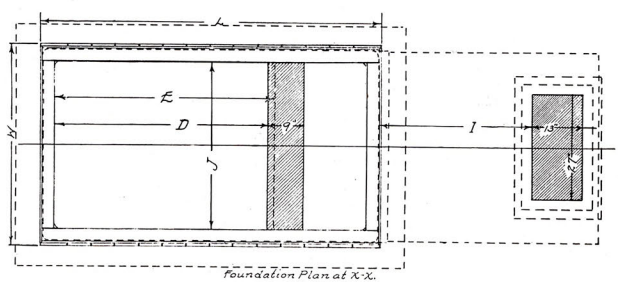


Setting Plan

KEWANEE Smokeless Firebox Boiler

Portable Type

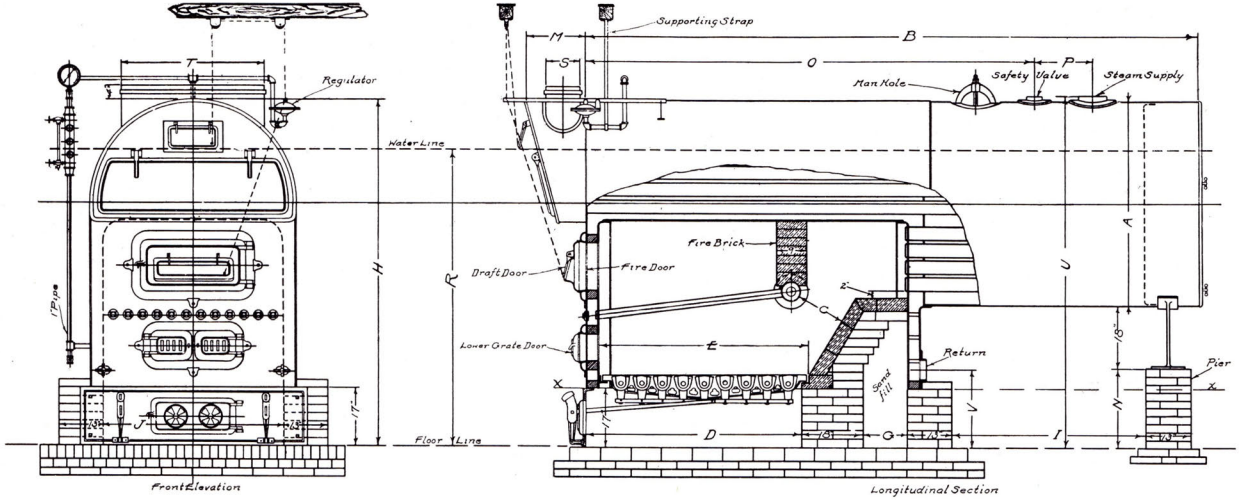
Note: Boilers 310, 311, 312, 313 and 314 are constructed as above but are set on brick ash-pit as shown on page 8.

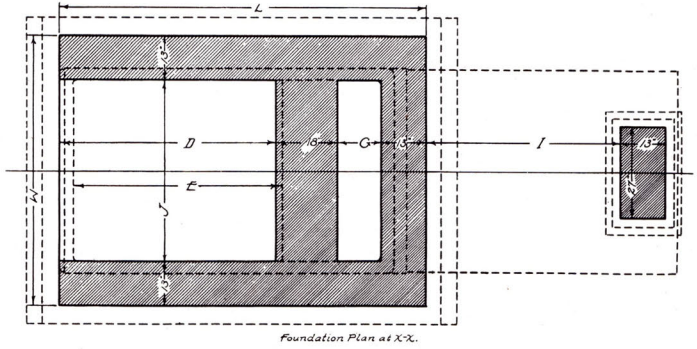


Setting Measurements

Number of Boiler	301	302	303	304	305	306	307	308	309	310	311	312	313	314
Diameter Boiler, inches. . . . . A	36	36	36	42	42	42	48	48	48	54	54	54	60	60
Length Boiler, feet and inches. . . . . B	7–5 1/8	7–9 1/8	8–6 1/8	7–9 1/8	8–6 1/8	9–4 1/8	8–9 1/4	10–1 1/4	11–1 1/4	10–7 1/4	11–7 1/4	12–7 1/4	12–7 1/4	13–7 1/4
Header to Bridge Wall, inches. C	5 1/2	6	6 1/2	6	6 1/2	8	7 1/2	9	9 1/2	9	10	11	10	11
Length of Ash Pit, inches. . . . . D	31 5/8	31 5/8	37 5/8	31 5/8	37 5/8	43 5/8	37 5/8	43 3/4	49 3/4	50 1/4	56 1/4	62 1/4	56 1/4	62 1/4
Length of Grate, inches. . . . . E	31	31	37	31	37	43	37	43	49	49	55	61	55	61
Height of Return, inches. . . . . F	18 1/4	18 1/4	18 1/4	18 3/4	18 3/4	18 3/4	19 1/4	19 1/4	19 1/4	19 1/2	19 1/2	19 1/2	19 3/4	19 3/4
Height of Steam Supply, inches. . . . . G	75 1/2	75 1/2	75 1/2	81 1/16	81 1/16	81 1/16	86 1/4	86 1/4	86 1/4	93 1/2	93 1/2	93 1/2	99 1/4	99 1/4
Height of Boiler, inches. . . . . H	74 1/2	74 1/2	74 1/2	79 1/2	79 1/2	79 1/2	84 1/2	84 1/2	84 1/2	92 1/4	92 1/4	92 1/4	98	98
Ash Pit to Pier, inches. I	27	27	33	27	33	37	29	39	45					
Width of Ash Pit, inches. . . . . J	25	25	25	31	31	31	37	37	37	43	43	43	49	49
Length of Base, inches. L	51 1/2	55 1/2	58	55 1/2	58	64	61 1/2	67 1/2	73 1/2	84 1/4	90 1/4	96 1/4	90 1/4	96 1/4
Length of Smoke Box, inches. . . . . M	11	11	11	12 3/8	12 3/8	12 3/8	14 1/2	14 1/2	14 1/2	14 3/4	14 3/4	14 3/4	16 3/4	16 3/4
Height of Pier, inches. . . . . N	20 5/16	20 5/16	20 5/16	19 5/16	19 5/16	19 5/16	18 5/16	18 5/16	18 5/16	20	20	20	19 5/8	19 5/8
Location Safety Valve, feet and inches. . . . . O	4–10	5–1	5–6	5–2	5–6	6–0	5–10	6–3	7–0	7–3	7–10	7–1 1/2	8–0	10–1
Location Steam Supply, inches. . . . . P	12	11	14	11 1/2	15	15	11 1/4	18	18	14	16	38 1/2	21	16
Height of Water Line, inches. . . . . R	66 5/16	66 5/16	66 5/16	69 1/2	69 1/2	69 1/2	72 5/16	72 5/16	72 5/16	78 1/2	78 1/2	78 1/2	83	83
Width Breeching Connection, inches. . . . . S	8	8	8	8	8	8	8	8	8	8	8	8	10	10
Length Breeching Connection, inches. . . . . T	18	18	18	22	22	22	28	28	28	36	36	36	42	42
Width of Foundation, inches. . . . . W	33 1/2	33 1/2	33 1/2	39 1/2	39 1/2	39 1/2	45 1/2	45 1/2	45 1/2	60 3/8	60 3/8	60 3/8	66 3/8	66 3/8
Number of Common Brick.	310	325	335	390	400	425	450	460	475	875	925	975	975	1025
Number of Fire Brick.	85	85	85	100	100	100	115	115	115	180	180	180	215	215
Outside surface to be covered, square feet	100	104	112	117	121	133	148	157	173	184	212	221	255	265
Note: Thickness Bridge Wall, inches.										13	13	13	18	18
Bridge Wall to Rear Wall, inches. . . . . G										12	12	12	7	7
Rear Wall to Pier, inches. I										27	33	39	45	51

Note: Boilers Nos. 310, 311, 312, 313 and 314 are constructed as shown on page 6 but are set on brick foundation instead of iron ash pit as shown. For key letters G and I pertaining to these sizes, see page 8.



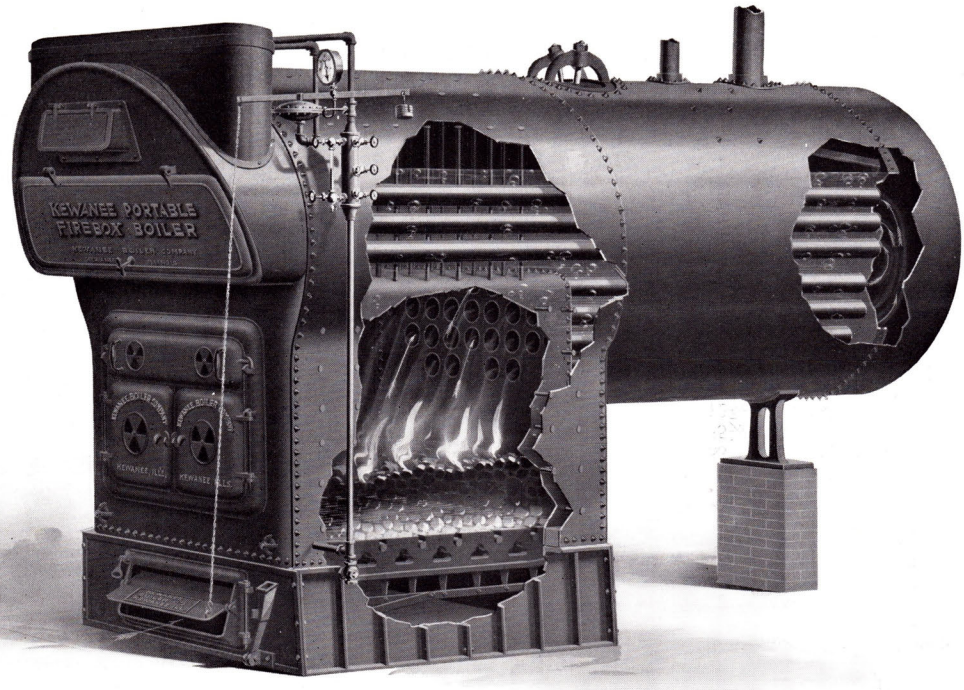


Setting and Foundation Plan
KEWANEE Smokeless Firebox Boiler
Portable Type

Setting and Foundation Measurements

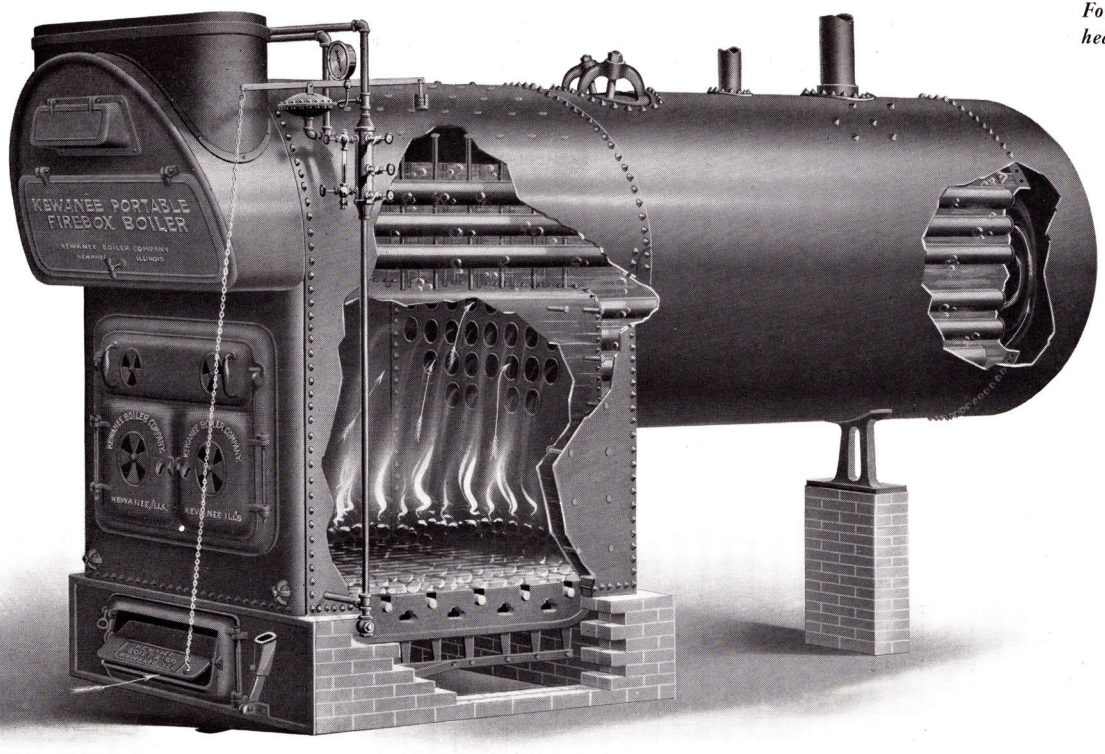
Number of Boiler	315	316	317	318	319	320	321	322	323
Diameter Boiler, inches A	60	60	66	66	72	72	78	78	84
Length of Boiler, feet and inches B	14–10 7/8	15–10 7/8	15–6	17–6	16–2 7/8	17–7 7/8	17–5 7/8	18–6 7/8	18–11 7/8
Header to Bridge Wall, inches C	12	12	13	13	14	14	15	15	16
Length of Ash Pit, inches D	62 7/8	62 7/8	62 7/8	68 7/8	68 7/8	74 7/8	74 7/8	74 7/8	74 7/8
Length of Grate, inches E	61	61	61	67	67	73	73	73	73
Bridge Wall to Rear Wall, inches G	13	19	13	13	13	13	13	19	19
Total Height, inches H	101	101	107	107	113	113	115	115	119
Rear Wall to Pier, inches I	57	63	62	80	63	74	72	79	84
Width of Ash Pit, inches J	53 1/4	53 1/4	59 1/4	59 1/4	65 1/4	65 1/4	71 1/4	71 1/4	77 1/4
Length of Foundation, inches L	106 7/8	112 7/8	106 7/8	112 7/8	112 7/8	118 7/8	118 7/8	124 7/8	124 7/8
Length of Smoke Box, inches M	16 3/4	16 3/4	18	18	20	20	20	20	21
Height of Pier, inches N	23	23	23	23	23	23	19	19	17
Location Safety Valve, feet and inches O	10–11	11–5	11–2	12–0	12–5	12–6	12–0	12–10	13–4
Location Steam Supply, inches P	34	34	38	52	46	51	42	56	60
Height of Water Line, inches R	86	86	90	90	97	97	97	97	97 1/2
Width of Breeching, inches S	10	10	10	10	12	12	12	12	12
Length of Breeching, inches T	42	42	48	48	58	58	62	62	72
Height of Steam Supply, inches U	102 1/4	102 1/4	109	109	115	115	117	117	121
Height of Return, inches V	22 3/4	22 3/4	23 1/4	23 1/4	23 1/4	23 1/4	23 1/4	23 1/4	23 1/4
Width of Foundation, inches W	79 1/4	79 1/4	85 1/4	85 1/4	91 1/4	91 1/4	97 1/4	97 1/4	103 1/4
Number Common Brick	2100	2200	2200	2300	2450	2550	2675	2800	3000
Number Fire Brick	250	270	320	310	320	325	360	375	420
Outside surface to be covered, square feet	266	280	290	330	335	360	370	400	430

For low pressure heating purposes



KEWANEE Firebox Boiler — portable type. Boilers No. 414 (and smaller) made as shown above. Iron Ash-pits (as illustrated) furnished with Boilers No. 409 and smaller.

For low pressure heating purposes



KEWANEE Firebox Boiler — portable type. Boiler No. 415 (and larger) made as shown above. Boilers No. 410 (and larger) set on brick foundation as illustrated.

Price List—KEWANEE Firebox Boilers—Portable Type

Number	0000	000	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420
Capacity, Steam.....square feet	500	700	900	1100	1300	1500	1800	2100	2400	2800	3300	3800	4300	4800	5500	6000	7000	8000	9000	10000	12000	13000
Capacity, Water.....square feet	800	1100	1500	1800	2100	2500	2900	3400	4000	4600	5400	6200	7000	7800	9000	9800	11400	13000	15000	17000	20000	22000
Code, Steam Boiler, complete....	Pick	Pill	Pig	Pillar	Pinch	Pink	Piston	Pit	Pipe	Plaid	Plank	Plat	Plaza	Plead	Place	Plod	Plain	Plunge	Plush	Poet	Point	Polar
Code, Water Boiler, complete....	Prank	Preach	Pray	Prefer	Press	Pretty	Prick	Pride	Prime	Prince	Print	Prism	Proud	Prone	Proxy	Psalm	Pulp	Punch	Pulse	Pure	Purge	Pyre
Price Steam Boiler, castings and Tools.....	$300	$320	$360	$380	$400	$440	$470	$500	$600	$650	$700	$800	$870	$920	$1000	$1070	$1300	$1450	$1700	$1850	$2000	$2200
Price, Steam Trimmings.....	$18	$18	$18	$18	$18	$19	$19	$19	$23	$23	$23	$23	$23	$23	$28	$28	$40	$40	$40	$40	$44	$44
Price Water Boiler, castings and Tools.....	$320	$340	$380	$400	$420	$460	$490	$520	$620	$670	$720	$820	$890	$940	$1020	$1090	$1330	$1480	$1750	$1900	$2050	$2250
Approximate weight.....pounds	2900	3200	4100	4500	4900	5500	6000	6500	7600	8600	9100	10000	11000	12000	13000	14000	16000	17500	20000	22000	23000	24000

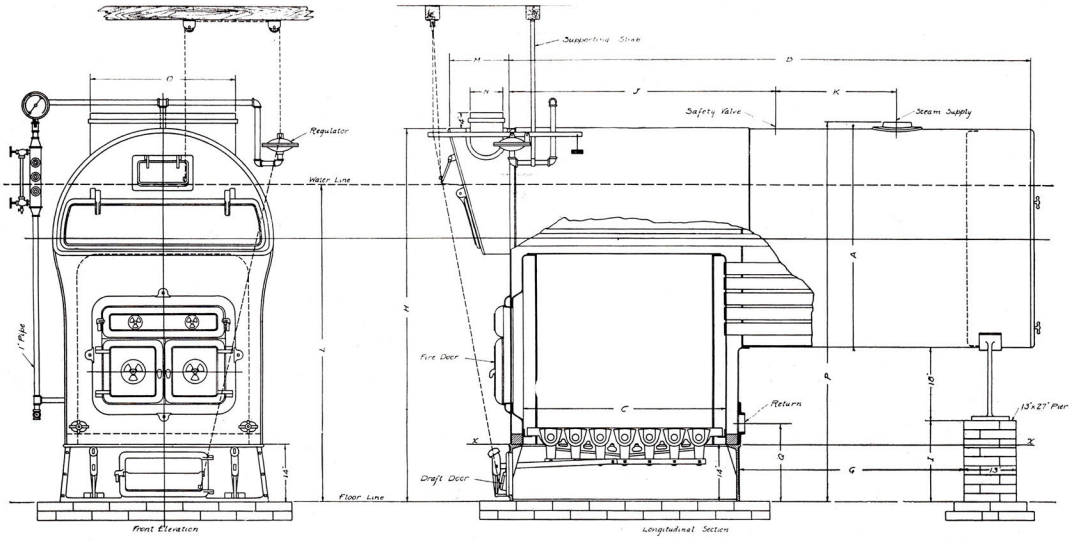
Extras and Changes—add to above lists

For longer shell, each foot or fraction of a foot.....	$20	$20	$30	$30	$30	$40	$40	$40	$50	$50	$50	$70	$70	$70	$80	$80	$80	$80	$90	$90	$100	$100
For longer Firebox including grate, each six inches.....	$24	$24	$30	$30	$30	$40	$40	$40	$46	$46	$46	$60	$60	$60	$70	$70	$80	$80	$100	$100	$120	$120

Opening in Firebox for Coil $4.00 list per boiler. All spacing rings are semi-steel. Lists for Boilers Nos. 0000 to 409 inclusive, include cast iron base.

Specifications—KEWANEE Firebox Boilers—Portable Type

Number	0000	000	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420
Diameter Boiler.....inches	30	30	36	36	36	42	42	42	48	48	48	54	54	54	60	60	60	60	66	66	72	72
Length Boiler.feet and inches	5-5⅛	6-5⅛	5-11⅛	6-5⅛	7-⅛	6-8⅛	7-8⅛	8-7⅛	8-3¼	8-10¼	10-9¼	9-8¼	10-9¼	11-9¼	12-1¼	13-3¼	13-11⅞	15-9⅞	15-6	16-11⅞	15-7⅞	17-1⅞
Width of Firebox.....inches	18	18	24	24	24	30	30	30	36	36	36	42	42	42	48	48	53	53	59	59	65	65
Length of Firebox.....inches	20	26	26	32	38	32	38	44	38	44	50	44	50	56	56	62	56	62	62	68	68	74
Height of Firebox.....inches	28	28	35	35	35	41	41	41	43	43	45	45	45	45	49	49	49	49	52	52	54	54
Number of Direct Tubes....	10	10	17	17	17	21	21	21	30	30	30	40	40	40	29	29	29	29	38	38	48	48
Length of Direct Tubes inches	30	36	30	30	31	33	39	44	42	47	60	53	60	66	70	78	92	108	102	114	96	108
Size of Direct Tubes...inches	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4
Number of Return Tubes....	12	12	18	18	18	25	25	25	30	30	30	36	36	36	30	30	30	30	33	33	48	48
Length Return Tubes inches	53	65	59	65	72	68	80	91	83	94	113	100	113	125	129	143	152	174	168	186	168	186
Size of Return Tubes..inches	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4
Heating Surface..square feet	75	89	122	132	151	186	219	248	281	320	375	422	477	528	583	642	701	804	905	1003	1003	1334
Area, Grate.....square feet	2.5	3.3	4.3	5.4	6.3	6.3	8	9.2	9.5	11	12.6	13	14.7	16.4	18.8	20	20.7	22	25.5	27.9	30.8	33.5
Diameter Breeching...inches	12	12	16	16	16	16	16	16	20	20	20	22	22	22	26	26	26	26	28	28	32	32
Diameter Stack.....inches	12	12	14	14	14	14	14	14	18	18	18	20	20	20	24	24	24	24	26	26	30	30
Minimum height of Stack feet	35	35	40	40	40	40	40	45	50	50	60	60	60	70	70	70	70	70	70	80	90	90
Diameter Stack 2 Boilers .....inches	14	14	18	18	18	20	20	20	24	24	24	26	26	26	32	32	32	32	34	34	40	40
Minimum height of stack 2 Boilers.....feet	40	40	40	40	45	45	45	45	50	60	60	60	60	70	70	70	80	80	80	90	90	90
Size of Steam Opening (one) .....inches	2½	2½	3	3	3	4	4	4	6	6	6	6	6	6	7	7	7	7	8	8	8	8
Size of Return Opening (one) .....inches	2	2	2½	2½	2½	3	3	3	4	4	4	4	4	4	5	5	5	5	6	6	6	6
Size of Safety Valve Opening .....inches	1¼	1¼	1½	1½	1½	2	2	2	2½	2½	2½	2½	2½	3	3	3	3½	3½	3½	3½	4	4
Number and Size of Supply and Return Openings for Water Boiler.....inches	1-4	1-4	1-6	1-6	1-6	1-6	1-6	1-6	2-5	2-5	2-5	2-6	2-6	2-6	2-7	2-7	2-7	2-7	2-8	2-8	2-10	2-10
Height of Water Line..inches	53	53	66	66	66	69	69	69	72	72	72	78	78	78	83	83	86	86	90	90	97	97
Height Floor to Top of Shell .....inches	59	59	68	68	68	79	79	79	84	84	84	92	92	92	97	97	101	101	107	107	113	113

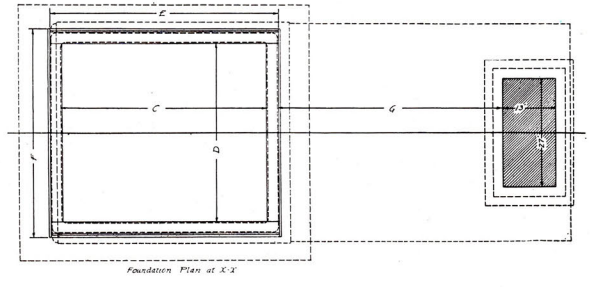


Setting Plan

KEWANEE Firebox Boiler

Portable Type

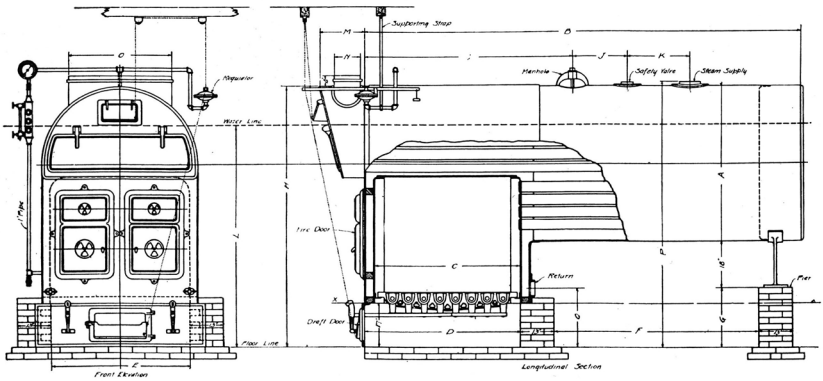
Note: Boilers 410, 411, 412, 413 and 414 are constructed as shown above but are set on brick ash-pit as shown on page 16.

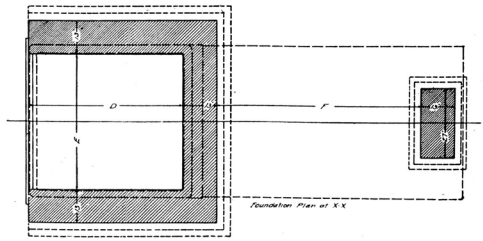


Setting Measurements

Number of Boiler	0000	000	401	402	403	404	405	406	407	408	409	410	411	412	413	414
Diameter of Boiler, inches. . . . . A	30	30	36	36	36	42	42	42	48	48	48	54	54	54	60	60
Length of Boiler, feet and inches. . . B	5–5 1/8	6–5 1/8	5–11 1/8	6–5 1/8	7–1/8	6–8 1/8	7–8 1/8	8–7 1/8	8–3 1/4	9–2 1/4	10–9 1/4	9–8 1/4	10–9 1/4	11–9 1/4	12–1 1/4	13–3 1/4
Length of Firebox, inches. C	20	26	26	32	38	32	38	44	38	44	50	44	50	56	56	62
Width of Firebox, inches. . . . . D	18 3/8	18 3/8	24 3/8	24 3/8	24 3/8	30 3/8	30 3/8	30 3/8	36 3/8	36 3/8	36 3/8					
Length Ash Pit Base, inches. . . . . E	27 1/2	33 1/2	33 1/2	39 1/2	45 1/2	39 1/2	45 1/2	51 1/2	45 1/2	51 1/2	57 1/2					
Width Ash Pit Base, inches. . . . . F	27 1/2	27 1/2	33 1/2	33 1/2	33 1/2	39 1/2	39 1/2	39 1/2	45 1/2	45 1/2	45 1/2					
Ash Pit Base to Pier, inches. . . . . G	27	33	27	27	28	30	36	41	39	44	57					
Total Height, inches. . . . . H	59 1/4	59 1/4	68 9/16	68 9/16	68 9/16	79 9/16	79 9/16	79 9/16	84 5/8	84 5/8	84 5/8	92 5/16	92 5/16	92 5/16	97 5/16	97 5/16
Height of Pier, inches. I	11	11	14 5/8	14 5/8	14 5/8	19 5/8	19 5/8	19 5/8	18 5/8	18 5/8	18 5/8	20	20	20	19 5/8	19 5/8
Location Safety Valve, feet and inches. . . . . J	2–10	3–6	3–4	3–10	4–4	4–0	4–5	5–0	4–6	5–0	5–6	5–4	5–6	8–1/2	7–11 1/4	8–8
Location Steam Supply, inches. . . . K	12	15	11	11	11 1/8	12	15	18 1/2	17	18	2′–6″	24	30	18	16	24
Height of Water Line, inches. L	53 1/2	53 1/2	66 5/16	66 5/16	66 5/16	69 1/2	69 1/2	69 1/2	72 5/16	72 5/16	72 5/16	78 1/2	78 1/2	78 1/2	83	83
Length of Smoke Box, inches. . . . . M	8 3/4	8 3/4	11	11	11	12 3/8	12 3/8	12 3/8	14 1/2	14 1/2	14 1/2	14 3/4	14 3/4	14 3/4	16 3/4	16 3/4
Width Breeching Connection, inches N	6	6	8	8	8	8	8	8	8	8	8	8	8	8	10	10
Length Breeching Connection, inches. . . . . O	14	14	18	18	18	22	22	22	28	28	28	36	36	36	42	42
Height Steam Supply, inches. . . . . P	59 3/4	59 3/4	70 1/16	70 1/16	70 1/16	81 1/16	81 1/16	81 1/16	86 1/4	86 1/4	86 1/4	93 11/16	93 11/16	93 11/16	99 1/8	99 1/8
Height Return, inches. . . . . Q	17 3/4	17 3/4	18 1/4	18 1/4	18 1/4	18 3/4	18 3/4	18 3/4	19 1/4	19 1/4	19 1/4	19 1/4	19 1/4	19 1/4	19 3/4	19 3/4
Number of Common Brick.	150	170	210	220	230	250	260	290	290	320	330	650	700	750	800	850
Outside Surface to be Covered, square feet	50	55	65	70	75	80	90	105	115	130	150	155	175	185	190	220
Length of Ash Pit, inches. . . . . D												47 1/2	53 1/2	59 1/2	59 1/2	65 1/2
Width of Ash Pit, inches. . . . . E												43	43	43	49	49
Ash Pit, wall to pier, ft. and in. . . F												3–9	4–4	4–10	5–2	5–10

Boilers Nos. 410, 411, 412, 413 and 414 are constructed as shown on page 14 but are set on brick base instead of cast iron ash pit. For key letters D, E and F pertaining to these sizes see page 16.





Setting and Foundation Plan

KEWANEE Firebox Boiler

Portable Type

Setting and Foundation Measurements

Number of Boiler	415	416	417	418	419	420
Diameter of Boiler, inches. A	60	60	66	66	72	72
Length of Boiler, feet and inches . . B	13–11 7/8	15–9 7/8	15–6	16–11 7/8	15–7 7/8	17–1 7/8
Length of Grate, inches. C	56	62	62	68	68	74
Length of Ash Pit, inches D	60	66	66	72	72	78
Width of Ash Pit, inches. E	54	54	60	60	66	66
Ash Pit Wall to Pier, feet and inches. . F	6–7	7–11	7–5	8–5	6–11	7–11
Height of Pier, inches G	23	23	23	23	23	23
Total Height, inches H	101 5/16	101 5/16	107 3/8	107 3/8	113 3/8	113 3/8
Location of Manhole, feet and inches. I	6–8	7–3 1/2	7–1	7–6	7–8	8–3
Location of Safety Valve, inches. J	21	27	22	33	24	24
Location of Steam Supply, inches. K	24	30	43	42	35	43
Height of Water Line, inches. L	86	86	90	90	97	97
Length Smoke Box, inches. M	16 3/4	16 3/4	18	18	20	20
Width Breeching Connection, inches. N	10	10	10	10	12	12
Length Breeching Connection, inches. O	42	42	48	48	58	58
Height Steam Supply, inches. P	102 3/4	102 3/4	109 1/4	109 1/4	115 1/4	115 1/4
Height Return, inches. Q	22 3/4	22 3/4	23 1/4	23 1/4	23 1/4	23 1/4
Number of Common Brick.	1100	1170	1230	1300	1350	1430
Outside Surface to be Covered, square feet	250	280	290	310	315	345

Rogers & Company, Chicago and New York